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10/674,879	09/29/2003	Philippe Wieczorek	B-5243 621287-5	9202

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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

ANYA, CHARLES E

ART UNIT	PAPER NUMBER
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2194

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/674,879

Applicant(s)

WIECZOREK ET AL.

Examiner

Charles E. Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-20 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-20 and 22-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1,3-6,8-20 and 22-31 are pending in this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,928,457 B2 to Jacobs et al.**

3. As to claim 12, Jacobs teaches a data processing system, comprising: an object server to provide access to a remote object ("...RMI object..." 10 Ln. 29 – 67); a first object registry for publishing first access data for locating and accessing the remote object via the object server ("...name tree..." Col. 5 Ln. 7 – 10, "...JNDI-compliant naming service..." / Server 302 Col. 14 Ln. 23 – 47); a second registry for publishing second access data for locating and accessing the remote object via the object server ("...duplicate..." Col. 5 Ln. 7 – 10, "...replicated naming service..." / Server 303 Col. 14 Ln 23 – 47); and client hosting a client application requiring access to the remote object

(Client 304 Col. 14 Ln. 48 – 67); the client application being arranged to issue a request to receive access data for locating and accessing the remote object (“...stub...” Col. 14 Ln. 48 – 57), the first and second object registries are hosted by first and second servers respectively that are operated in active and stand-by modes so that the request for access data is processed by the first server; the first and second servers comprising means to migrate a communication channel for carrying the request from the first server to the second server in the event of a fault associated with the first server such that the second server services subsequent requests for access data (“...name tree...” Col. 5 Ln. 7 – 10, “...JNDI-compliant naming service...”/ Server 302 Col. 14 Ln. 23 – 47 “...duplicate...” Col. 5 Ln. 7 – 10, Ln. 34 – 36, “...replicated naming service...”/Server 303 Col. 14 Ln 23 – 47); the object server being arranged to supply the access data to the first object registry (“...name tree...” Col. 5 Ln. 7 – 10, “...JNDI-compliant naming service...”/ Server 302 Col. 14 Ln. 23 – 47).

4. As to claim 13, Jacobs teaches a data processing system as claimed in claim 12, in which the published access data is supplied to the first server and mirrored to the second server (Col. 5 Ln. 7 – 10, “...add RA stub...” Col. 14 Ln. 31 – 33).

5. Claims 18 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2000099970 A1 to Zhao et al.

6. As to claim 18, Zhao teaches an intermediate registry server comprising means to receive a request for access data associated with an object accessible via an object server ("...binding...binding interceptor...bind method..." page 3 paragraphs 0034-0036); means to receive the access data from object server ("...return to the client..." page 3 paragraph 0036), and, in response to the request, means to request the access data from first and second object registries storing the access data ("...alternative server..." page 3 paragraphs 0035/0036); and means to respond to the request by forwarding the access data returned from at least one of the first and second object registries ("...return..." page 3 paragraph 0035/0036, figures 5/6 page 3 paragraphs 0040/0041).

7. As to claim 28, Zhao teaches a method for remote object invocation from a first environment of a remote object hosted by or accessible by a second environment comprising the steps of: issuing at least a first request for access data for a remote object to a first remote object registry hosted by first server operating in active mode (page 1 paragraphs 0012/0013, "...binding...binding interceptor...bind method..." page 3 paragraphs 0034-0036); supplying, from the an object server, the access data to the first object registry (figure 5); reflecting data associated with the first remote object server to the second remote object server/migrating address data associated with the first remote object server to the second remote object server ("...stale object reference..."); directing the access request, from the first remote object server to the second remote object server in event of a fault associated with the first server

("...failover..." page 3 paragraphs 0036/0040); receiving the access data from at least one of the first and second remote object registries ("...return..." page 3 paragraph 0035/0036, figures 5/6 page 3 paragraphs 0040/0041, page 1 paragraphs 0012/0013) and invoking the method of the remote object via the environment ("...communicate..." page 1 paragraphs 0012/0013).

8. Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,269,378 B1 to Quirt.

9. As to claims 19, an intermediate registry server comprising: means to receive a command to post, to at least first and second object registries, access data associated with a remotely accessible object that can be invoked via an object server (Registration Message 308 Col. 8 Ln. 22 – 62); means to receive the access data from the object server (Central Name Service/Local Name Service 302/Cluster name Service Col. 8 Ln. 41 – 62) and means to instruct both the first and second object registries to store the access data (Entry 310/Entry 314 Col. 8 Ln. 41 – 62).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1,6,9,10,14-17 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,928,457 B2 to Jacobs et al. in view of U.S. Pat. No. 6,269,378 B1 to Quirt.

12. As to claim 1, Jacobs teaches a data processing system (Col. 11 Ln. 19 – 30, comprising an object server to provide access to a remote object (“...RMI object...” 10 Ln. 29 – 67), a first object registry for publishing first access data for locating and accessing the remote object via the object server (“...name tree...” Col. 5 Ln. 7 – 10, “...JNDI-compliant naming service...”/ Server 302 Col. 14 Ln. 23 – 47), a second object registry for publishing second access data for locating and accessing the remote object via the object server (“...duplicate...” Col. 5 Ln. 7 – 10, “...replicated naming service...”/Server 303 Col. 14 Ln 23 – 47); and a client hosting a client application requiring access to the remote object (Client 304 Col. 14 Ln. 48 – 67); the client application being arranged to issue a request to receive access data for locating and accessing the remote object; the access data being supplied by at least one of the first and second object registries in the form of at least one of the first or second access data (“...stub...” Col. 14 Ln. 48 – 57); the object server being arranged to supply the access data to the first and second object registries (“...add RA stub...” Col. 14 Ln. 31 – 33).

Jacobs is silent with reference to an intermediate registry, hosted by an intermediate registry server, for servicing at least one of the request for access data and

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an access data publication request comprising the access data for locating and providing access to the remote object, the access data being supplied to the client through the intermediate registry and the object server being arranged to supply to access data to the first and second object registries through the intermediate registry.

Quirt teaches an intermediate registry, hosted by an intermediate registry server, for servicing at least one of the request for access data and an access data publication request comprising the access data for locating and providing access to the remote object, the access data being supplied to the client through the intermediate registry (figure 2A/2B Col. 7 Ln. 21 – 67, Col. 8 Ln. 1 – 21, figure 3 Col. 8 Ln. 22 – 67) and the object server being arranged to supply to access data to the first and second object registries through the intermediate registry (“...Name Service...” Col. 4 Ln. 40 – 65, figure 2A/2B Col. 7 Ln. 21 – 67, Col. 8 Ln. 1 – 21).

It would have been obvious to one of ordinary skill in the art at the time the invention was to modify the system of Jacob with the teaching of Quirt because the teaching of Quirt would improve the system of Jacob by providing an improved process and name service for locating a software object in an asynchronous distributed software system with the simplicity of synchronous interaction and a uniform response time comparable to a local name service look-up (Quirt Col. 3 Ln. 53 – 57).

13. As to claim 6, see the rejection of claims 1 and 12 above.

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14. As to claim 9, Jacobs teaches a data processing system as claimed in claim 1, in which the first and second access data are supplied to the first and second registries using a second predetermined instruction ("...add RA stub..." Col. 14 Ln. 31 – 33).

15. As to claim 10, Jacobs teaches a data processing system as claimed in claim 9, in which the second predetermined instruction is arranged to supply the first and second access data to the first and second object registries simultaneously ("...add RA stub..." Col. 14 Ln. 31 – 33).

16. As to claims 14-16, see the rejection of claim 1.

17. As to claim 17, see the rejection of claims 1 and 2 above.

18. As to claims 29-30, see the rejection of claim 1 above.

19. Claims 20-27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pub. No. 2002/0099970 A1 to Zhao et al. in view of U.S. Pat. No. 6,269,378 B1 to Quirt.

20. As to claim 20, Zhao teaches a method for remote object invocation from a first environment of a remote object hosted by or accessible by a second environment, comprising the steps of: issuing at least a first request for access data for a remote

object to first and second object registries hosted by first and second servers (page 1 paragraphs 0012/0013, "...binding...binding interceptor...bind method..." page 3 paragraphs 0034-0036); receiving the access data from at least one of the first and second remote object registries ("...return..." page 3 paragraph 0035/0036, figures 5/6 page 3 paragraphs 0040/0041, page 1 paragraphs 0012/0013); and invoking the method of the remote object via the second environment ("...communicate..." page 1 paragraphs 0012/0013).

Zhao is silent with reference to issuing at least the first request comprising the steps of issuing a prior request for access data to an intermediate server that translates and forwards the prior request to first and second requests for the data to the first and second remote object registries respectively; supplying, from an object server, the access data to the first and second object registries through the intermediate server.

Quirt teaches issuing at least the first request comprising the steps of issuing a prior request for access data to an intermediate server that translates and forwards the prior request to first and second requests for the data to the first and second remote object registries respectively; supplying, from an object server, the access data to the first and second object registries through the intermediate server ("...Name Service..." Col. 4 Ln. 40 – 65, Col. 9 Ln. 11.– 20).

It would have been obvious to one of ordinary skill in the art at the time the invention was to modify the system of Jacob with the teaching of Quirt because the teaching of Quirt would improve the system of Jacob by providing an improved process and name service for locating a software object in an asynchronous distributed software

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system with the simplicity of synchronous interaction and a uniform response time comparable to a local name service look-up (Quirt Col. 3 Ln. 53 – 57).

21. As to claim 22, Zhao teaches a method as claimed in claim 20 further comprising the step of providing a first programming language instruction implementing a post of access data; the first programming language instruction comprising first and second parameters representing references to first and second access data accessible via the first and second remote object references respectively (“...alternative server...”/“...another object reference...” page 3 paragraphs 0035/0036).

22. As to claim 23, Zhao teaches a method as claimed in claim 22 in which the step of providing a first programming language instruction comprises the step of modifying an existing programming language instruction implement the request for access data (“...alternative server...”/“...another object reference...” page 3 paragraphs 0035/0036).

23. As to claim 24, Zhao teaches a method as claimed in claim 23 in which the step of modifying an existing programming language instruction comprises the step of modifying a Java bind or rebind instruction to utilize the first and second parameters (“...binding interceptor...Java...alternative server...” page 3 paragraphs 0034-0036).

24. As to claim 25, Zhao teaches a method as claimed in claim 20, further comprising the step of providing a second programming language instruction

implementing a request for the access data; the second programming language instruction comprising first and second parameters representing references to first and second access data accessible via the first and second remote object references respectively (“...alternative server...” page 3 paragraphs 0034-0036).

25. As to claim 26, Zhao teaches a method as claimed in claim 25 in which the step of providing a second programming language instruction comprises the step of modifying an existing programming language instruction implement the request for access data (“...alternative server...”/“...another object reference...” page 3 paragraphs 0034-0036).

26. As to claim 27, Zhao teaches a method as claimed in claim 26 in which the step of modifying an existing programming language instruction comprises the step of modifying a Java lookup instruction to utilize the first and second parameters (“...alternative server...” page 3 paragraphs 0034-0036).

27. As to claim 31, see the rejection of claim 20 above.

28. Claims 3-5,8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,928,457 B2 to Jacobs et al. in view of U.S. Pat. No. 6,269,378 B1 to Quirt as applied to claim 1 above, and further in view of U.S. Pat. 20020099970 A1 to Zhao et al.

29. As to claim 3, Quirt and Jacobs are silent with respect to a data processing system as claimed in claim 1, in which the intermediate registry maps the request for access data to two access requests; the two access requests being directed to respective ones of the first and second registries and being in respect of the first and second access data respectively.

Zhao teaches a data processing system as claimed in claim 1, in which the intermediate registry maps the request for access data to two access requests/the two access requests being directed to respective ones of the first and second registries and being in respect of the first and second access data respectively ("... alternative server..." page 3 paragraph 0035).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Quirt and Jacobs with the teaching of Zhao because the teaching of Zhao would improve the system of Quirt and Jacobs by providing a process for reducing failures associated with selecting a server located in a distributed object oriented computing environment (Zhao page 1 paragraph 0010).

30. As to claim 4, Zhao teaches a data processing system as claimed in claim 1, in which the intermediate registry maps the access data publication request to two access data publication requests/each of the two object access data publication requests being directed to respective ones of the first and second registries and both containing the

access data for locating and providing access to the remote object ("... alternative server..." page 3 paragraph 0035).

31. As to claim 5, Zhao teaches a data processing system as claimed in claim 4, in which the first and second access data are derived from the access data for locating and providing access to the remote object ("... alternative server..." page 3 paragraph 0035).

32. As to claim 8, Zhao teaches a data processing system as claimed in claim 6, in which the first predetermined instruction is a Java bind instruction modified to provide access to the first and second object registries and to request the first and second access data ("... binding interceptor... Java... alternative server..." page 3 paragraphs 0034-0036).

33. As to claim 11, Zhao teaches a data processing system as claimed in claim 10, in which the second predetermined instruction is a Java lookup instruction modified to provide the first and second access data to the first and second object registries simultaneously ("... alternative server..." page 3 paragraphs 0034-0036).

Response to Arguments

Applicant's arguments with respect to claims 1,3-6,8-20 and 22-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Charles E Anya
Examiner
Art Unit 2194

cea.



WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER